

Texas Agricultural Extension Service



People Helping People

Programming into the '90s

Texans Take Action on Critical Issues

Fellow Texans:

Rapid changes in the state economy and population have placed difficult demands on the resources of Texas residents, businesses, governments and organizations. To help Texans cope with these demands, the Texas Agricultural Extension Service initiated a plan early in 1986 to ensure that Extension resources be on target with the needs of Texans.

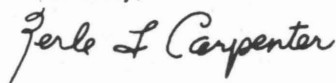
We invited concerned citizens and leaders in each county to tell us what issues they believe should be dealt with during the rest of the decade. More than 12,000 Texans—business people, homemakers, farmers, ranchers, retirees, clergy, teachers and other professionals and workers from many walks of life—accepted our invitation. These people served on citizen task forces that conducted a series of county meetings to analyze local problems and to set long-range objectives for solving these problems. Almost 5,000 issues were identified. These issues were diverse, but similarities found across many counties led to twelve broad categories of issues that will receive statewide emphasis.

Identification of local and general statewide issues has been valuable to the Texas Agricultural Extension Service. The insight of the citizen task forces has enabled county Extension staffs and volunteers to develop new educational programs and redirect existing programs to best meet county needs. These efforts have been mapped into a new long-range Extension program guide in each county.

We appreciate the efforts of every individual who participated on the task forces. This involvement of concerned citizens helps give Extension program councils direction in tailoring Extension programs to meet critical county conditions. Also, the collective results from the task forces have contributed to the formulation of a statewide plan of action for the Texas Agricultural Extension Service.

The twelve statewide issues determined to be critical for all Texans during the rest of this decade are discussed in the following pages. We urge each of you to participate with Extension staff and volunteers in the program development process in your county so that you can make the best use of Extension educational programs for yourself, your family and your fellow Texans.

Sincerely,

A handwritten signature in cursive script that reads "Zerle L. Carpenter". The signature is written in dark ink and is positioned above the printed name and title.

Zerle L. Carpenter
Director

AGRICULTURAL DIVERSIFICATION

Many Texas agricultural producers are producing one or two major commodities, without choosing among sufficient alternative enterprises to increase profits or to reduce the risks associated with depending on one or two commodities.

ISSUE

Enterprise diversification is an issue among Texas producers because:

- Past production patterns or tradition have caused many producers to resist change and be reluctant to diversify.
- Environmental factors such as soil, rainfall and temperature may limit the number of possible alternative enterprises.
- Producers may not have the management or technical skills necessary to produce some of the possible alternative enterprises.
- Capital required to invest in alternative enterprises may not be available.
- High production costs and lack of markets or marketing channels may cause alternative enterprises not to appear profitable.
- Supply of technically competent labor required by some alternative enterprises may not be available.
- Risks associated with producing some of the alternative enterprises may be greater than the producer wishes to assume.

ALTERNATIVES

Enterprise diversification may be a satisfactory alternative and can occur both horizontally and vertically. Horizontal diversification is the most commonly used form and consists of producing other agricultural commodities.

Vertical diversification is integrating into either the input or output sides of an existing enterprise. For example, a cotton farmer might consider entering the ginning business or a fertilizer distributorship. Vertically diversified enterprises have the potential of not only being profitable in themselves, but also making existing enterprises more profitable by decreasing input costs or increasing output prices.

Diversification possibilities to consider, other than commodities, include:

- Marketing strategies to increase profitability and reduce price risk.
- Management and labor resources to provide services to other producers or to obtain off-farm employment.
- Cash resources through various investment instruments.
- Equipment use by examining optimal mixes of owned, leased and custom-hired equipment.
- Land and other resources to include recreational or other non-farm uses.

The possible consequence of not dealing realistically with the diversification issue is continued, if not increased, depression in agricultural profitability. By not implementing feasible alternatives, chances for improving profitability or reducing risks are limited. However, if not properly analyzed, producers may invest in nonprofitable enterprises, may create an oversupply of diversifying commodities and may not use management and labor skills where they would generate the greatest net profits.

EDUCATION STRATEGIES

Applied research and education is needed to develop, identify and teach techniques to enable Texas agricultural producers to diversify to reduce their dependence on a few, major, traditionally-grown commodities. Efforts also must be directed to help producers internally diversify their existing operations by modifying and redirecting their marketing, management and production practices. Extension will address the issue of agricultural enterprise diversity by:

- Assisting producers in assessing market potential and identifying marketing channels for diversifying agricultural commodities and enterprises.
- Determining the adaptiveness and feasibility of potential alternative agricultural operations.
- Helping producers understand and adopt emerging technologies which encourage diversification and could result in a marketplace or production advantage.
- Providing producers with training in management and technical skills necessary to successfully and economically diversify their agricultural operations.
- Analyzing existing operations and identifying potential areas for diversification.

AGRICULTURAL PROFITABILITY AND COMPETITIVENESS

Farmers and ranchers are facing major operating adjustments to overcome financial setbacks resulting from reduced profitability. They are adjusting the size of operations, seeking equitable rental agreements and implementing cost-effective measures in putting their land, labor and money to best use. This involves a closer look at crop and livestock production, marketing and financial management practices that may reduce expenses and/or increase income.

ISSUE

Profitability of farming and ranching operations has been squeezed substantially by the narrowing margins between production costs and returns. Commodity prices received by producers have not kept up with increasing production costs. Where total production expenses averaged 80 percent of gross Texas agricultural income in 1975, expenses now amount to about 90 percent of income. The problem is compounded when losses result in a buildup of carryover debts from one year to the next, adding to the amount of interest cost without generating any additional income.

Production increases stimulated by new technology have exceeded effective demand. For some commodities, consumer tastes and preferences have changed as a result of diet concerns and the relative cost of substitutable food products. This causes demand to increase for some commodities and decrease for others.

Economic policies that drive up the dollar's value result in reduced farm exports, increased imports and high money costs. These combine to reduce farm profitability. Because of these developments, rapid changes in operating, managing and financing farms and ranches have taken place. Producers focusing on symptoms of low earnings and not recognizing the causes and consequences fail to take appropriate action to adjust business procedures and management practices.

In Texas, about two-thirds of the agricultural operators are not using enterprise budgets, half have never used cash flow statements and a third do not use the basic tools of financial management.

ALTERNATIVES

To improve profitability, farmers and ranchers need to seek more management and marketing information, develop businesslike procedures to evaluate programs and alternatives, monitor performance and adopt that combination of production technologies that contributes to profit. Those who do not adapt to the changing environment probably will be forced to leave agriculture.

As adjustments are made, the number of small part-time agricultural operations will increase and the number of large agricultural operations will decrease. Irrigated acreage will likely decline. Water-conserving practices such as furrow diking will be adopted to improve profitability of dryland crop production. There will be fewer, but better trained, agricultural workers. More effective conservation tillage systems will reduce soil compaction, labor requirements and fuel usage. With proper tillage, crop yields and water retention will improve, resulting in plants less susceptible to drought stress. Improved wildlife management and a shift of acreage to this use will increase wildlife populations, leading to more recreational opportunities and greater income to agricultural producers.

While many factors external to the agricultural economy will impact the level of profitability of the agricultural industry, appropriate implementation of proven management practices will be the primary determinant of the profitability of individual operations.

EDUCATIONAL STRATEGIES

To help agricultural producers regain profitability in their operations, the Texas Agricultural Extension Service will develop a total production systems approach which producers can use to strive for maximum economic returns, not maximum output. Better integration of production, financial and marketing strategies will be achieved by using the resources of a multidisciplinary team of Extension specialists and agents. Extension will involve producers in identifying problems, setting priorities and planning and conducting programs.

The Texas Agricultural Extension Service will implement the total production systems approach by demonstrating to producers how they can better:

- Evaluate the quantity and quality of available resources.
- Implement production technology only after consideration of effects on total farm or ranch profit.
- Determine the profit-maximizing combinations of available resources and of input use.
- Develop and use basic financial management tools.
- Evaluate and monitor available marketing strategies.
- Implement risk-reducing measures.
- Purchase capital assets based on return on investment and cash flow feasibility.
- Renegotiate rental arrangements to make them more equitable.
- Structure the farm or ranch business to take advantage of income and estate tax laws.

ECONOMIC DEVELOPMENT

Economic development issues are dynamic, complex and varied among geographic regions of the state and sectors of the economy. For several decades, low farm income relative to other sectors of the economy has resulted in a continuous exodus from agriculture. Texas lost 17,000 farms in 1985, with about 169,000 farms remaining in 1986. The agricultural exodus resulted in a net loss of population in rural areas until the early 1970s when the non-agricultural population movement to rural areas exceeded the population losses from agriculture. Since the mid-1970s, more rural counties have gained population than have lost population.

Based on 1975-79 data, only 61 Texas counties (24 percent) are classified as agricultural-based counties with 20 percent or more of the labor and proprietary income from agriculture. An additional 47 Texas counties (18.5 percent) are classified as agriculturally important counties with 10 percent or more of the county's income from agriculture. In 1984, Secretary of Agriculture John R. Block advised President Reagan that "...the average farm family depends on income derived off the farm for two-thirds of their total annual earnings. Most of that off-farm income is derived from other rural enterprises. Thus, the very economic survival of these American farm families depends heavily on the vitality of the non-farm rural economy." The economic stability of agriculture is now dependent upon the rural economy rather than the rural economy being dependent upon the agricultural sector.

A disparity of income continues to prevail between the urban and rural areas of Texas. Rural areas when compared to urban areas have a lower per capita income, higher unemployment and a lower rate of return to investments. They also lag behind in health services, education, cultural and recreational opportunities and public services associated with quality of living.

During recent years of high oil prices, Texas was among the leading states in economic growth, new jobs, low unemployment rates and population growth. Many demographers and economists projected unprecedented continual growth through the 1990s. With falling oil prices, income, jobs and revenues declined for all sectors of the economy—private and public. The population growth has stopped and possibly reversed. However, the impact of the volatile economic changes is not uniform among economic sectors or geographical areas of the state.

ISSUE

Economic development poses the following three issues of primary concern to Texas leaders and citizens:

- The need for a diversified economy within communities and regions as a hedge against erratic economic fluctuations tied to dependency on a single industry.

- The overall level of jobs and income in all regions of the state.
- The disparity of employment, income and quality of life between rural and urban areas.

ALTERNATIVES

A single uniform approach to the key issues is not feasible because of variability among geographic regions and among sectors of the Texas economy—agriculture, tourism, oil and gas, marine industries, manufacturing, services, communications, insurance and finance. Additionally, major population centers have an adequate population and economic base to support professionally staffed development programs; whereas, much of the development effort in rural areas is conducted by community volunteers on a part-time basis. Professional developers usually have the time and resources to acquire needed training and information. This capability, coupled with a high concentration of specialized services in the population centers, creates a significant advantage for the urban areas when compared to rural areas.

Effective alternative approaches to dealing with the key issues must take into consideration the specific needs of each community or region and the diverse needs of community leaders and officials related to subject matter, training and accessibility.

EDUCATIONAL STRATEGIES

Extension programs will help community leaders and officials to understand their local economy, to develop necessary leadership skills required for effective community planning and to implement strategies for economic growth and business vitality. These programs will be targeted primarily to the tourism, business and industrial sectors of the rural economy which also encompass the agribusiness and service industries.

Extension educational programs will focus on:

- Providing an analysis of demographic and economic data on a county and community basis to enable local leaders to understand their local economy.
- Helping local leaders and officials to analyze their needs and potentials as a basis for identifying feasible development opportunities and to set priorities.
- Training community leaders in the concepts and procedures for planning, establishing and facilitating development efforts.
- Training community leaders and officials in strategies for economic growth.
- Training small business owners/operators in business management skills and practices to improve survival and profitability.

FINANCIAL PLANNING AND MANAGEMENT

Texans face an economically challenging future. The economic well-being of families and individuals is influenced by the economy and by individual decisions about how to use their resources. This shift from a growing domestic economy with an ever-increasing standard of living to an unstable economic climate, where the present standard of living (including entitlement to goods, services and lifestyles) is difficult to maintain, threatens the economic viability of many Texans.

ISSUE

Texans are concerned about changes in economic conditions which affect their personal financial security. The marketplace offers a wide variety of goods and services to meet consumer needs and wants, but consumers must develop the skills to live within the limits of an uncertain economy. Consequently, Texas consumers must better manage their financial resources if they are to meet basic needs and achieve economic security, self-reliance and satisfaction with their quality of life.

Effective planning and management of financial resources consists of a number of skills that must be applied throughout the life cycle. They include assessing needs and wants, establishing and prioritizing financial goals, budgeting and recordkeeping, credit and debt management, risk management, saving and investing, tax planning and retirement and estate planning.

Effective management practices will help Texans achieve financial goals as diverse as finding suitable and affordable housing, protecting against rising health care costs, investing in the family farm or business, paying for higher education or planning for a secure retirement. However, financial resources are not always adequate, so Texans also must know how to supplement their resources through do-it-yourself skills, bartering and income-earning opportunities.

Changes in the level of economic resources, family and household composition and public policy all affect financial decisionmaking. People have a life-long need to update financial knowledge and skills in keeping with the changes affecting their lives.

ALTERNATIVES

The consequences to Texans not prepared to manage their financial resources may be both immediate and long-term. Immediate problems include failure to meet basic needs or achieve financial goals, decreased net worth, problems with solvency and less satisfaction with quality of life. The pressure of a high debt load may cause

health problems, family conflicts and dissatisfaction with the present level of living. Heavy credit usage increases the possibility of farm or home foreclosure, bankruptcy, returned checks and repossession. A poor credit record makes it difficult to obtain credit, thus threatening even further family economic well-being. The long-term cost to the economy and to taxpayers is high when people do not make well-informed financial decisions and fail to become functioning, self-reliant citizens. Improved financial and consumer decision-making will have a positive impact on the family, the community and the economy. It can result in a decrease in family tension and stress, improved credit ratings, increased potential for attaining financial goals, increased saving and planning for the future, and increased economic development.

A number of groups are concerned about the financial security of Texans. Banks, savings and loan associations, credit unions, financial planning and insurance industries, commodity groups and non-profit consumer credit counseling services are among those interested in helping families and individuals to become better financial managers.

EDUCATIONAL STRATEGIES

As the financial and consumer marketplace expands and consumer choices become more varied, Texans will need information and education about financial matters to help them make consumer and financial decisions. Extension is in a unique position to help Texans apply research-based information for effective financial management in today's economy. To help Texans to live within their financial means, Extension's educational strategies will focus on:

- Programs, seminars and workshops designed to help people change or strengthen their financial management practices and increase their potential for achieving financial goals.
- Developing teaching resources to meet the specific financial planning and management needs of targeted audiences, including farm families, dual-earner families, the unemployed, youth, young families, etc.
- Increasing the use of computer and video technology, individualized instruction, worksite education and other educational innovations.
- Training leaders and volunteers in financial management topics.
- Developing cooperative linkages with public and private groups interested in the economic security of Texans.

IMPROVING NUTRITION, DIET AND HEALTH

People are increasingly concerned about their health. A significant improvement in health status and subsequent reduction in medical costs can be achieved by practicing a wellness lifestyle. Medical researchers estimate that two-thirds of all illnesses and premature deaths are related to lifestyle choices such as poor eating habits, insufficient exercise and lack of responsibility for individual health and safety.

ISSUE

The public's hunger for health-related information often leads them to popular recommendations that may be unreliable and not based on well-documented scientific fact. Consumers are challenged to understand and use product information to make wise choices of packaged foods, dietary supplements and over-the-counter medications. They are expected to understand terms such as grams, cholesterol, triglycerides and carcinogenic and can easily be misled by advertising.

Obesity, a major problem in Texas, is a known risk factor for heart disease, hypertension, cancer and diabetes. An estimated 57 percent of all households have at least one member on a weight loss diet. Unfortunately, about 95 percent are unsuccessful and turn from one weight loss diet to another. Successful weight loss increases with the addition of a permanent exercise routine, but two-thirds of Texans do not participate in regular physical exercise.

Although research shows there is a relationship between smoking, misuse of drugs and alcohol, lack of use of auto safety restraints and health, many Texans are either unaware of the role of lifestyle in promoting health and preventing disease or lack the motivation, skill and support systems to alter their lifestyles. According to the 1984 Texas Behavioral Risk Factor Survey, almost one-third of Texans smoke cigarettes, half never wear their seat belts and seven percent consume five or more alcoholic drinks daily.

ALTERNATIVES

Without effective education to help reduce personal lifestyle risk factors, Texans will continue to suffer needlessly from long-term disabling diseases and the cost of medical care will reach an estimated \$1 trillion annually (\$4,000 per capita) by the year 2000. A number of government, voluntary and private organizations are providing information and recommendations about health

and nutrition. The proliferation of information from a variety of sources can be confusing to the public. The county Extension agent can serve a key role in teaching an integrated approach to nutrition, health and wellness and can help clarify misunderstandings and confusion.

Nutrition education for consumers, based on reliable research, can have major implications for the health and well-being of Texans. Consumers who are unaware of how lifestyle factors other than diet, such as lack of exercise, poor stress management and smoking, affect their health are more vulnerable to fad diets. They may unnecessarily exclude wholesome agricultural products from their diets and stand a greater chance of experiencing chronic degenerative diseases if they are not involved in sound educational activities. Many people are unaware of the role of total lifestyle in promoting good health. It is important to deal with dietary recommendations as part of a whole for best results. Accepting responsibility for one's own health and practicing sound nutrition habits and a healthy lifestyle will enable Texans to reach their fullest potential.

EDUCATIONAL STRATEGIES

Current research data on nutrition and other health risk factors will serve as the framework for developing programs which address specific audiences such as teenagers, young mothers, dual-career families, limited income, the elderly, overweight adults and others at high risk. The Texas Agricultural Extension Service will:

- Initiate a mass media campaign to increase awareness of personal risk factors and their relationship to disease and disability.
- Sponsor seminars and workshops for the identification of an individual's specific health risk factors through the use of health risk appraisal instruments, dietary analysis and screening tests for early detection of health problems.
- Develop teaching materials for intervention activities which foster positive lifestyle changes in such areas as weight control, exercise and fitness, nutrition for special diets, personal safety and responsible use of alcohol and drugs.
- Establish communication among producer groups, government and voluntary organizations, educators, researchers and policymakers so that unified messages about health and nutrition can be evolved and supported.

LEADERSHIP DEVELOPMENT

Our society continues to become increasingly complex. Agricultural producers, families, youths, community residents, business people and many other groups face complex issues which require individual and group action. To effectively deal with societal change, one must understand and use group and political processes. Currently, a small percent of the population is involved in community, state and national leadership roles, either in presenting positions on issues, running for offices or assuming group leadership roles. People who do not have the skills to affect change are at the mercy, and must deal with the consequences, of the decisions of the few who do. Thus, people feel controlled by government or other power groups.

ISSUE

Effective leadership is needed to address rapid change and pressures as resources shift in availability, as rural areas become more urban or experience major population decline, and as a larger percentage of the population is made up of older adults, dual-earner families or single parents. The vitality of our state, local communities and family units stems from the ingenuity and ability of individuals and groups to influence the opinions and actions of others. Leaders need to be involved in decisionmaking processes to bring about social and economic change that will meet their needs and desires in an equitable manner. In addition to active citizen involvement, leadership skills are needed by volunteer leaders who are increasingly called upon by agencies and organizations to meet educational and service needs of individuals and communities to plan and implement programs. The number and quality of leaders recruited and provided development opportunities affects the cost and effectiveness of programs delivered by agencies and organizations.

The quality of decisionmaking and the ability of volunteers to teach and serve others can ultimately affect the quality of life if the wealth of Texas human capital in the form of potential leaders is developed. Adults and youths increasing their ability to communicate timely information to decisionmakers and peers, use problem-solving skills and manage their time and energy to see a project through completion will feel a greater sense of control over and responsibility for their livelihood and well-being.

Communities offer leadership development training, but such programs are expensive and not readily accessible to everyone. Lack of quality leadership will result in individuals, families, agricultural producers, businesses and communities either drifting as determined by external events or having problems resolved by

external parties. The meaning of living in a democratic society will be diminished.

ALTERNATIVES

If leadership development is not addressed:

- Texans will be less able to deal effectively with problems confronting them now and in the future.
- Fewer people will control local, state and national policy decisions.
- The feeling that the government controls people rather than the democratic philosophy that people control government will prevail.
- The quality of decisions will be diminished by limited representation of diverse perspectives on issues.

Extension leadership programming through agents located in each county, backed by the research base of the state land grant university and the technical expertise of specialized staff, can result in:

- An increase in the number and quality of leaders involved in local, state and national issue evaluation and resolution.
- Improved decisionmaking through wider participation of citizens in identifying and evaluating alternatives to public concerns.
- More viable programs and services through citizen involvement and understanding.
- More cost-effective programs and services through quality volunteer service and leadership.

EDUCATIONAL STRATEGIES

Extension will meet the need for leadership development by:

- Implementing strategies for identifying, recruiting and fostering the involvement of potential leaders in service to their community.
- Conducting a variety of educational programs to strengthen current leaders' knowledge and skills in subject matter and teaching methods to expand their effectiveness and outreach as co-teachers with agency and organization staff.
- Providing leadership development learning experiences designed to prepare emerging agricultural, community, family and youth leaders to study and develop solutions to issues impacting on their economic security and individual, family or community well-being.
- Involving citizens in leadership decisionmaking roles which direct efforts to resolve local issues through education or group action (Extension program area committees, commodity marketing groups and officers of local, regional and state organizations).

MARKETING OF AGRICULTURAL AND NATURAL RESOURCE PRODUCTS

Texas agricultural producers market approximately \$10 billion worth of commodities each year, including revenue from natural resource use. Yet, many farmers and ranchers are not receiving profitable prices on products they make available to the market. Marketing is an important part of the profit equation for agricultural producers. If average market prices could be increased just one percent, Texas producers would gain about \$100 million annually.

ISSUE

Marketing is one of the keys to success in agriculture. Every producer and/or landowner is faced with decisions of how and when to market products. There is no one recipe for success because of the many variables affecting marketing decisions. Therefore, marketing alternatives and strategies often are not well understood by producers. As a result, effective and efficient marketing techniques and strategies are not being fully utilized.

Texas agriculture is in a global market for many of its major commodities. The producer margin is thinner than it has been in earlier years. Therefore, price instability greatly increases financial risk and impact survivability of the firm. Lenders are concerned about the market risk exposure of their clientele. Alternatives available to limit market risk to producers/landowners are not well understood. American producers are dependent upon domestic macroeconomic policies, farm policy and foreign trade practices. The interaction between marketing and farm policy is particularly important. Lack of timely market information and slow reaction to changing consumer tastes and preferences continue to hamper coordination of production with consumer demand.

Resource owners are evaluating additional economic benefits through non-traditional marketing methods. Merchandising of wildlife, recreation, tourism and wood products as part of the total product mix of land resources has become important to survivability of many operations. This requires an integrated approach to management and marketing.

ALTERNATIVES

The trend toward larger and fewer commercial operations producing the food, fiber and wood products will continue at an increasing rate with the currently declining profit margins. Lack of production-marketing coordina-

tion and continued price instability will contribute to the financial stress faced by farmers and ranchers. Some will not survive as a result. Farmers' and ranchers' portion of the consumer dollar will dwindle if they do not become more active in marketing. Total resource potential will not be fully utilized if new products or activities are not explored and evaluated. Attempts by producers to expand into high-valued specialty crops can result in failure without adequate marketing planning and evaluation of marketing techniques. All of these factors can lead to reduced marketing efficiency and effectiveness.

EDUCATIONAL STRATEGIES

The Texas Agricultural Extension Service will develop and implement an innovative, multifaceted educational program to assist in solving producers' marketing problems. Producers need to understand what their marketing alternatives are, what problems they address and how the marketing strategies can be implemented. Both individual and group marketing methods will be explored by using Extension resources at both the specialist and county agent level.

Extension will enhance the marketing of Texas agricultural and natural resource products through:

- In-depth county programs addressing specific marketing needs as part of the total resource marketing concept.
- Use of an innovative, research-based, multi-dimensional educational approach of publications, mass media, workshops and individual conferences to promote increased knowledge of marketing opportunities and improved marketing skills to enhance income and reduce risk.
- Developing and using computerized decision aids and new information technology in producer education on marketing strategy development.
- Analyzing and disseminating up-to-date market information to improve decisions by producers.
- Cooperating and coordinating with other state and federal agencies and commodity groups in domestic and foreign market development.
- Conducting educational programs in group marketing alternatives and ways to improve efficiency by marketing and supply firms.
- Assisting producer and community groups in identifying and evaluating potential for further processing and value-added, agricultural products.

REVITALIZATION OF RURAL TEXAS

Revitalization means the ability of rural Texans to work collectively on problems of mutual concern. In this general sense, revitalization must be linked to critical issues of statewide concern such as economic development, rural-urban relationships and agricultural profitability. However, rural revitalization also refers specifically to the provision of publicly shared goods and services—reaching optimum levels of environmental quality, land use, fire and crime protection, water and sewer system delivery, solid waste disposal, emergency medical care and transportation networks.

ISSUE

The issue is whether or not rural Texas has the organizational capacity and capability to obtain desired quantities and qualities of public goods and services. Rural Texas is experiencing substantial social, economic and political changes directly related to the provision of public goods and services. Population growth and decline, fluctuating economic conditions and transfer of governmental functions and funding from higher to lower levels all have adverse impacts. These factors create problems in basic goods/services provision and in management and planning for the organizations that fund, deliver and/or control these goods and services.

Unfortunately, the 80 percent of Texas counties that are nonmetropolitan and 95 percent of Texas communities that have less than 25,000 population often find it difficult to effectively deal with these problems. Lacking fiscal and personnel resources, and professional and technical expertise, rural Texans generally must rely on volunteers, local initiative and self-help techniques to provide, plan and manage these goods and services.

Thus, this issue has two components. An organizational component involves rural residents participating in formal and informal organizations oriented to public goods and services. An informational component involves these organizations acquiring the professional and technical information needed to effectively plan and manage the good or service of concern. The balance between these two components will vary with specific goods and services, but one general example is rural fire protection. Achieving desired levels of this service may require formation of a volunteer fire department and

acquisition of professional and technical information needed to accomplish its purpose.

ALTERNATIVES

One alternative is for rural residents to take no action in resolving this issue. This usually results in inappropriate, inadequate, inefficient and ineffective delivery of public goods and services. The other alternative is for rural residents to become involved with the issue of public goods and services and to acquire expertise in needed areas. This alternative is not easy because of the changes occurring in rural Texas. Involvement of residents in locally shared goods and services is difficult because of population changes which have resulted in some rural communities with one-fourth of their population composed of newcomers. Funding these goods and services is difficult with unstable, declining local economies. Nevertheless, this is the viable alternative for dealing with the issue.

EDUCATIONAL STRATEGIES

The objective of Extension programs to revitalize rural Texas is to help community leaders and officials plan for, fund and provide public goods and services. These would include such things as environmental quality, fire protection, police protection, emergency medical care, transportation, water and sewer districts, schools, adequate available housing and solid waste disposal. Educational programs will focus on:

- Organizational development—assisting local leaders and officials in developing the organizations necessary to fund and deliver public goods and services.
- Leadership, management and planning skills—training local leaders in the skills necessary to plan for and deliver public goods and services effectively and efficiently.
- Impact analysis—evaluating the impact of the changing state, regional and local economies on the demand for public goods and services.
- Cost analysis—providing budget information on the costs of delivering public goods and services so that leaders can evaluate alternative approaches.

RURAL-URBAN RELATIONSHIPS

Eighty percent of the Texas population resides in urban areas. This increasingly urban influence has exerted a dominant force in public policy and development decisions which affect rural areas. Decisions which have a major impact on rural areas or rural issues are often decided by urban residents who may be less than informed or less directly influenced by the full impact of these decisions. There is considerable competition for resources, but concern about the environment is common to both rural and urban interests.

ISSUE

Many issues arise as rural Texas is influenced by predominantly urban-based populations and concerns. Among these are competitive uses of land for purposes other than agriculture, competition for water, concern over pollution or degradation of the environment, and lack of understanding and sensitivity of urban residents to the concerns and needs of agriculture.

The urban sector has become dominant in Texas within the last several decades. Tremendous growth of cities has taken farm and ranch lands from agricultural production, or placed severe restrictions on production because of its proximity to urban development. Many rural subdivisions effectively place limitations on uses of the surrounding agricultural land.

Much land in Texas is owned by people who do not operate or live on the land. These absentee landowners are separated from the land and many are not aware of the production or conservation needs of that resource.

The recent population growth of Texas has increased the rural-urban competition for water. Agriculture currently accounts for more than 70 percent of the water resources used annually. Municipal and industrial users are demanding more water at the expense of agriculture.

Rural and urban interests share a concern for the environment. Although both sectors contribute to degradation of the environment, urban publics often perceive agriculture as the major contributor to water quality deterioration, air pollution and unsafe use of pesticides. Urban dwellers also add to each of these problems.

Separated physically and by lack of understanding from agricultural production, urban dwellers often are insensitive to the needs of the state's second most important basic industry—agriculture. Many Texans do not have an adequate understanding of food and fiber production and its impact on the Texas economy and the job market. This lack of knowledge also has an impact on areas such as ad valorem taxation and landowner rights.

ALTERNATIVES

Resolution of the issues brought about by interaction between rural and urban citizens will be complex. If no attempt is made to resolve the differences between the rural and urban sectors, the gap between the two will widen as the issues of common concern become more problematical.

Education of the general public regarding the role of agriculture and its importance to the Texas economy is critical if there is to be greater understanding and cooperation between rural and urban people. The Texas Agricultural Extension Service has a role to play in this educational process, as well as other organizations which have unique opportunities to be involved in facilitating communication and information transfer. These organizations include state and federal agencies, water districts, local taxing authorities, farm and commodity organizations and companies with an agricultural base.

EDUCATIONAL STRATEGIES

The Texas Agricultural Extension Service will provide educational programs, information and technical assistance as a basis for an active, continuing educational process for individuals, agencies and organizations. To help rural and urban citizens become more knowledgeable about issues so they can make informed decisions, Extension programs will provide information on:

- Land utilization
- Water resources
- Environmental quality
- Role and needs of agriculture in Texas

STRENGTHENING TEXAS FAMILIES

The family system interacts with all other major institutions and affects other systems when it is dysfunctional. Texas' most intense social concerns and highest governmental expenditures are rooted within its family systems. Texas, which has 1,992,484 family units with children under 18, will enter the next century with even greater ethnic, cultural and age diversity than it has today.

ISSUE

Texas families need to develop skills to increase family satisfactions, manage multiple roles and responsibilities and adjust to change.

- **Changes in family structure.** About 84 percent of Texas families are two-parent households, but the number headed by single parents is increasing. Divorces involve some 87,000 Texas children annually; one of every eight children lives in a stepfamily.
- **Impact of the workplace.** Most women in Texas are married, have children and are in the labor force. Fifty-five percent of mothers with children 18 and under work outside the home. Quality child care in many areas is unavailable or cost prohibitive. The job market in Texas is changing and job requirements may demand the development of new skills and family relocation.
- **Complexities of parenting patterns.** Few Texans receive preparation for parenting other than their own family histories. Less than 4 percent of Texas high school students are involved in pre-parenting or child development programs, yet 15 percent of Texas babies are born to teenage mothers. Many health problems of children (drug abuse, emotional disturbance and accidents) appear to be related to the socioeconomic conditions of their families. Parents often feel insecure in helping children through the critical stages of infancy, childhood and adolescence. Television and other media often challenge traditional family values and standards.
- **Aging of the population.** Older Texans (now 9.5 percent of the state's population) are concerned about maintaining independence; middle-age children are concerned about their retirement and likely responsibilities of parent care. Relationships between generations will become more critical as the political clout of older adults influences public expenditures.

Stress is intensified in families faced with new and demanding roles and responsibilities for which they are not prepared. Many are unaware of personal and community resources that can enable them to cope. To support and build strong family units that can respond positively to societal change, people need skills to

improve marital relationships, prepare for and enhance parenting, adapt to change in family structure, manage multiple roles and responsibilities, adjust to economic instability, effectively use leisure and provide a nurturing environment for all family members.

ALTERNATIVES

Society can ignore the family unit and place personal responsibility in the hands of individuals and family members. Society can allocate greater use of tax dollars for direct intervention, protection and rehabilitation. Or, society can provide education and supports to families to increase their capabilities for family management and well-being.

For the third alternative to be realistic, effective and economically feasible, educational systems, agencies, organizations, churches and the public sector must identify needs; develop, initiate and evaluate programs; and promote participation and involvement. Family-oriented programs must reflect statewide and local concerns.

EDUCATIONAL STRATEGIES

To help Texans strengthen their families, Extension can:

- Provide educational programs to support family functioning at various life cycle stages and families with special concerns.
- Develop a "family strengths" video series based on characteristics of strong families.
- Initiate a "family education forum" for professionals to provide an update on practical application and program methodology related to research.
- Provide public access at the county level to The Texas A&M University System for information related to specific needs of individual families.
- Train volunteers in family support programming.
- Maintain access to family research data bases and program resources through the National Agricultural Library and the land grant Extension network.
- Serve as an information source for business, industry and governmental bodies concerned with family policy.
- Provide educational programs on policy development and implication for families.
- Utilize the State 4-H Center for forums for families with special interests, including stepfamilies, single parent families and families with handicapped members.
- Develop 4-H programs to promote family interaction.

WATER QUALITY AND CONSERVATION

To assure the citizens of Texas an adequate, safe water supply to support continued development of the state's economic, natural and human resources and protection of the environment requires ongoing measures.

ISSUE

Texas' water usage is increasing because of growth and rising per capita water use rates. The state's water supply/demand equation is balanced only by mining depleted groundwater, which supplies 61 percent of the 17.9 million acre-feet of water used in Texas annually. Water treatment and distribution systems have lagged in growth. Almost 3 million people depend on private wells or rural water associations. Water rights are oversubscribed in many river basins. Agriculture accounts for about 70 percent of the total water use in the state. Irrigation efficiencies are typically 60 to 70 percent, but present technology can achieve 80 to 90 percent efficiency. Irrigated acreage has decreased 20 percent in the last decade. Economic competition for water favors industry and municipalities. More than 50 percent of urban water use is for lawns, landscapes and gardens during summer.

Fish and wildlife require fresh water inflows to maintain aquatic environments in streams and estuaries. Brush and weeds on rangelands and along streams deplete moisture and decrease stream flow, aquifer recharge and forage production.

Surface and groundwater pollution is occurring from municipal and industrial waste disposal activities, on-site sewage treatment, mineral extraction and agricultural production. Public concern over groundwater quality is increasing. Agriculture is viewed as a major contributor to water quality impairment, with animal agriculture being regulated stringently. Treated municipal and food-processing wastewaters are being applied on agricultural lands.

Improved water use efficiency and water quality are top priorities for all Texans. Extension educational programs and technology transfer are important for solving short- and long-term water problems.

ALTERNATIVES

Improved water management must include conservation, development of new resources, protection of quality and use of treated wastewater or brackish groundwater where necessary. Water users must be better informed. Increased funding for research, development and implementation is necessary.

Failure to adapt water use patterns to water availability will worsen shortages in agriculture, reduce

irrigated acreage and slow economic growth. Improved water use efficiency will foster economic expansion and public welfare. Adoption of water quality protection and treatment technologies will protect current water supplies.

Conservation systems that improve water use efficiency for farmland are available. Improved irrigation system design and management will improve yields and stretch present water resources. Water pollution abatement from agricultural lands can be achieved through soil and water conservation practices. Use of soil testing, integrated pest management and conservation tillage can reduce environmental impact of agricultural chemicals and sediment. Proper grazing and brush management will increase infiltration and enhance stream flow and quality while reducing soil erosion. Conservation in urban landscape will extend water resources and reduce water treatment requirements. Use of drought-tolerant landscape conservation design can help reduce landscape water use by 50 percent without sacrificing appearance. Home water consumption can be reduced by 25 percent without disruptions. Improved water quality testing, interpretation and treatment will allow increased use of wastewater or brackish water for human, agricultural and industrial needs and protect water resources.

EDUCATIONAL STRATEGIES

Water use and quality management considerations will be integrated into appropriate Extension educational programs and activities, with major focus on:

- Improved on-farm technologies for water conservation, including rainfall utilization, soil moisture storage, irrigation systems and irrigation scheduling.
- Brush control, weed control and range management.
- Nonpoint source water pollution control through soil and water conservation practices.
- Prevention of groundwater pollution from agricultural sources.
- Proper water utilization, quality maintenance, seepage and evaporation control to reduce fresh water use in fish production.
- Water quality criteria and treatment systems for private wells and proper on-site sewage treatment systems.
- Beneficial use of agricultural wastes, municipal effluents and sludges on cropland in compliance with water pollution abatement principles.
- Proper selection, care and efficient water application to landscape plants and turfgrass for conservation.
- Technology for in-home water use reduction.
- Current Texas water policies, issues and programs.

YOUTH DEVELOPMENT

Texas youths are the state's most valuable resource. The development of young people into mature, productive, contributing citizens is a major objective of any society. In a democratic society, it is imperative that young people develop strong qualities of leadership, citizenship and self-esteem so that they will gain the competence and confidence to become active participants in their local government. It is also important that they receive the nurture, guidance and support needed to develop healthy minds and bodies.

ISSUE

Concerns about today's young people are great—not because their problems are greatly different from those of previous generations, but because the consequences are more serious. Adults have cause for concern when they realize that at least 28,000,000 American children have at least one alcoholic parent. Sons of alcoholic fathers are four times more likely to become alcoholics. Daughters of alcoholic mothers are three times more likely to become alcoholics. Almost two-thirds (61 percent) of all U.S. high school seniors use an illegal drug at least once before they finish high school; 40 percent have used drugs in addition to marijuana. About 92 percent of all high school seniors have used alcohol. Cocaine had been tried by at least 17 percent of senior high school students in 1985. Motor vehicle accidents involving alcohol are the leading cause of death for Americans 15 to 19 years of age, accounting for 45 percent of the fatalities in this age group. Drug and alcohol abuse is 60 times more than in 1961 (1986 U.S. Statistical Abstracts, May).

Unemployment figures are up 35 percent for non-white and 60 percent for white teenagers since 1961. In 1984, one-quarter million 20- to 24-year-olds who were looking for work had never held a full-time job. Being unable to obtain and keep a "good" job is the third greatest fear of today's teenager.

Youths from 18 to 24 years of age accounted for 34 percent of all arrests in 1980, an 18 percent increase since 1960. Teenage homicide is up more than 200 percent for whites since 1950. Teen suicides have increased three to seven times in some areas of the state.

The average age of the first sexual experience is 15 to 17 years of age. Thirty percent of girls in the U.S. become pregnant between the 7th and 12th grades. Teens have 30 percent of all abortions and 50 percent of all illegitimate children. Nine percent of the teens surveyed reported having some type of homosexual experience. One in four girls and one in ten boys will be sexually abused.

When these concerns are added to the rising rate of teen runaways, AIDS, herpes and "crack," the newest, cheapest and most addictive form of cocaine, the need for programs in youth development becomes evident.

While teens are facing all of these problems, they also must accept and adjust to bodily changes, achieve appropriate gender roles, establish mature relationships with peers and gain emotional independence. They must select and prepare for an occupation and become economically independent, prepare for marriage and family life and develop social skills and a philosophy of life.

ALTERNATIVES

If we fail to address these issues, the consequences can be catastrophic. Some sources predict that as much as 60 percent of the U.S. population will be addicted to some type of illegal substance by 1990. Many urban areas already are experiencing a high school dropout rate of 40 percent or more. It costs the state about \$360 a day for a youth to go through the judicial system. Those who end up in the Texas prison system cost the state about \$37 a day.

EDUCATIONAL STRATEGIES

Extension has an obligation to collaborate with other youth-serving agencies to develop the most effective action programs possible to cause youths and their families to work toward positive goals. Extension is doing this in each county by helping concerned citizens to:

- Develop a system for identifying and recruiting qualified adult volunteers to serve as positive role models for youths.
- Maintain 4-H participation as a family affair.
- Promote parent-child communication and understanding.
- Provide a variety of opportunities for youths to practice developmental skills in a positive, supportive atmosphere.
- Provide youth development programs which enhance self-concept for all participants by allowing them to set and reach personal goals with the assistance and guidance of trained volunteers.
- Emphasize 4-H leadership opportunities for youths by keeping clubs small, involving the entire family and rotating responsibilities among all members and leaders.
- Provide opportunities for youths to become proficient in scientific and technical subject matter skills by building 4-H project work on a strong educational curriculum designed by the Texas Agricultural Extension Service.
- Help parents and volunteer leaders develop the teaching skills necessary to support and guide young people throughout developmental stages by providing training programs.



For more than 70 years, Texans have relied on their local county Extension agents for the most current, reliable information to solve everyday problems of living and making a living. County Extension agents conduct educational programs to help people use scientific information to solve practical problems and utilize available resources.

County Extension agents are supported by a staff of specialists located at Texas A&M University and at the 14 district headquarters throughout the state where they can respond quickly to county needs. Specialists form an effective link between county Extension agents and the research and teaching staffs of The Texas A&M University System. This organizational framework allows scientific information developed by the Texas Agricultural Experiment Station, USDA and other public and private research organizations to be interpreted so that people can make better decisions and reach economic and other goals which they set for themselves. It also makes resources of the Texas Agricultural Extension Service and other parts of The Texas A&M University System available to citizens across the state.

The Texas Agricultural Extension Service, which has programs for all citizens of Texas—young and old, rural and urban, was established in 1914 under a mandate to "serve the people." Cooperative Extension is the heart of a unique partnership between The Texas A&M University System, the County Commissioners Courts in 254 counties, state and federal governments and a network of volunteers.

Extension, with personnel serving every county, has an organizational framework and outreach capabilities unique among educational institutions. Extension is dedicated to improving the quality of life for all citizens with a variety of educational programs to help people put knowledge to work. Extension is a grassroots organization that meets local needs defined by local people by helping people identify problems and make the most effective use of available resources in solving them.



Educational programs conducted by the Texas Agricultural Extension Service serve people of all ages regardless of socioeconomic level, race, color, sex, religion, handicap or national origin.

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